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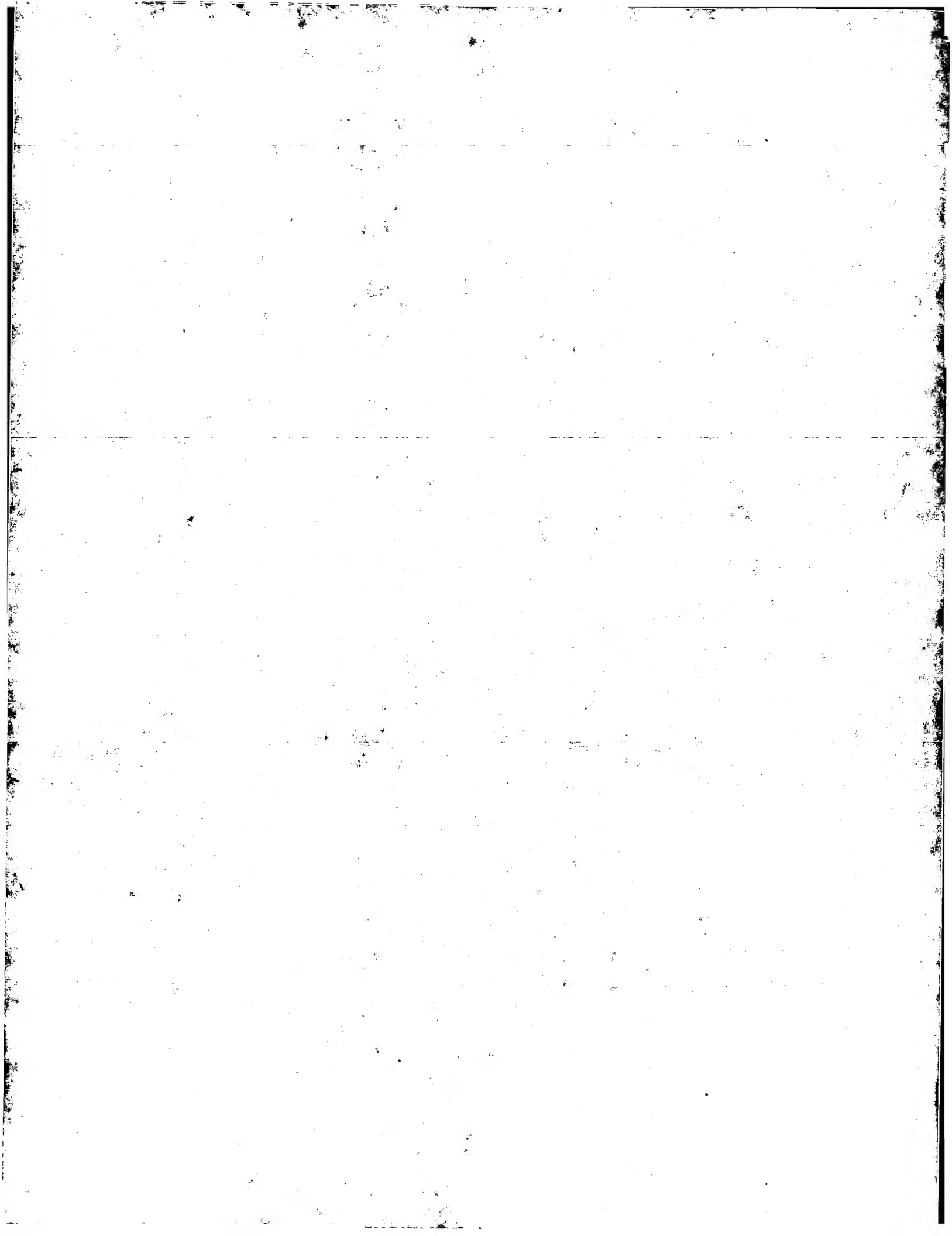
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AUSTRALIA

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NOTICE OF ENTITLEMENT

TO GRANT OF A PATENT,
PETTY PATENT, OR
PATENT OF ADDITION

We, COMSEC DISTRIBUTORS PTY. LIMITED (A.C.N. 057 209 971)

of 549 Willoughby Road, Willoughby NSW 2068

being the applicant(s) in respect of an Application **No 41629/93
for an invention entitled: SECURITY SURVEILLANCE SYSTEM

state the following:

The person(s) nominated for the grant of the patent:

1. ~~is/are the actual inventor(s) of the invention~~
or
has/have entitlement from the actual inventor(s) Nigel James Neaves
and the facts upon which the
person(s) nominated is/are entitled to make the application are as follows:
By way of contract of service to the applicant company.

2. ~~**/a) is/are the applicant(s) of the provisional application(s) listed on the patent request form~~
or
has/have entitlement to make a request under Section 113 in relation to the
provisional application(s) listed on the patent request form by virtue of:

~~(b) and the basic application(s) listed on the request form is/are the first application(s) made in a convention country in respect of the invention.~~

Signed at Willoughby this twentieth day of August 1993

COMSEC DISTRIBUTORS PTY LIMITED



Stat us:

PHILIP R. WHEELER, Director

If completed in the name of a company,
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H.R. HODGKINSON & CO
Patent Attorneys
Sydney.

643418

AUSTRALIA

Patents Act 1990

ORIGINAL

COMPLETE SPECIFICATION

PETTY PATENT

Invention Title: SECURITY SURVEILLANCE SYSTEM

The following statement is a full description of the invention, including the best method of performing it known to us:

BACKGROUND OF THE PRESENT INVENTION

THIS INVENTION relates to a security surveillance system, especially suitable for use in high-risk security areas such as prison cells and lock-ups,
5 hospitals, building entrances and lobbies, banks, art galleries, airports or wherever conventional security cameras are located and subject to vandalism or tampering.

Around-the-clock, 24-hour security of buildings is now
10 commonplace. However, the high cost of such security has lead to a rationalisation of security provisions in many situations, for example, the high cost of manpower has necessitated the replacement of security personnel at each location by closed circuit surveillance cameras
15 at each such location linked to a manned central control point, where the various locations can be monitored by means of television monitors.

However, the unavailability of security personnel at such locations increases the potential for damage to the
20 camera from vandals or the like. Another problem is that in armed hold-up situations, the perpetrators will often attempt to block the view of the surveillance camera by placing a cloak, or a towel, or other object over the camera lens.

25 In prison cells and lock-ups, another problem has arisen whereby the mere presence of a conventional security camera poses a potential threat to the well-being of the prisoner or detainee. This has become especially evident in the case of Australian Aborigines who have a
30 high propensity to commit suicide, especially by

hanging, when they are alone and incarcerated. With conventional security cameras, the camera itself constitutes a point from which a hanging noose can be strung.

- 5 In hospitals and sterile rooms, it is highly desirable that any fixtures within the room be as unobtrusive as practically possible, to present minimum surface areas for the possible settlement of dust. Existing surveillance cameras, because of their bulk and
10 prominence, present a problem area in this regard.

It is an object of the present invention to provide a security surveillance system which goes at least some way towards overcoming or at least minimising the prior art problems or limitations outlined above.

- 15 It is another object of this invention to provide a security surveillance system which reduces the possibility of tampering or vandalism of the housing or camera and further prevents the possibility of attachment of any foreign item intended for the purpose
20 of support thereof.

It is a further object of the present invention to provide a security surveillance system which is relatively simple and relatively inexpensive to manufacture.

- 25 These and other object of this invention will become more apparent from the following descriptions and drawings.

BRIEF SUMMARY OF THE PRESENT INVENTION

According to one aspect of this invention there is provided a security surveillance system comprising a housing containing image sensor and lens means

- 5 operatively connected to a remote monitor outside of the housing, said lens means being pivotally mounted in the housing for variable adjustments, the housing having the shape of a triangular or trigonal pyramid, preferably a truncated trigonal pyramid, having a base and three
- 10 sides, wherein said base forms the outward face or window of the housing and preferably having the geometrical configuration of an equilateral triangle, wherein the vertex of the three sides is at a point furtherest from said base and constitutes the back end
- 15 of said housing, and wherein each side preferably has, in the untruncated form, the geometrical configuration of a right angled isosceles triangle, the hypotenuse of which is conterminous with one side of the base.

- In use the surveillance camera housing is mounted in the
- 20 corner of a room at the juncture between two adjacent side walls and the ceiling, whereat each wall or ceiling surface is mutually at right angles to each of the other wall or ceiling surfaces, with the vertex of the housing at the juncture, with each of the three sides of the
- 25 housing abutting either a wall or ceiling surface, and with the base (i.e., the outward face or window) being the single face obtrusion of the housing. The outward face or window is transparent to, or capable of transmitting therethrough, sensed radiation.

- 30 Optionally, the security surveillance system may also incorporate audio communication means or heat detection sensors, such as a microphone or heater thermostat. A further embodiment incorporates alarm means which are



activated if an attempt is made to tamper with the security surveillance system.

BRIEF DESCRIPTION OF THE ACCOMPANYING DRAWINGS

This invention will now be described by way of example only and with reference to the accompanying drawings, wherein:-

FIGURE 1 is a perspective view of the security surveillance system housing looking from the rear;

FIGURE 2 is a frontal view of the security surveillance system, in situ, in the corner juncture of adjacent side walls and ceiling; and

FIGURE 3 is a partially exploded perspective view of the security surveillance system from a frontal aspect.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

A detailed description of the preferred embodiment with reference to the drawings follows, but it should be appreciated that modifications and variations may be made to the embodiment without departing from the scope or spirit of the invention.

Throughout the drawings, like components are referenced by the same numeral.

The security surveillance system as illustrated comprises a housing 10 of truncated trigonal pyramidal configuration having a base 18, which in this case constitutes the outward face or window of the housing.

The housing further comprises three side faces 11 and, in truncated form, a rear wall 12 having an aperture 13 for the entry of cables and the like. In this embodiment the base or window 18 has the geometrical configuration of an equilateral triangle, whereas the
5 side faces 11, in untruncated, form have the geometrical configuration of a right angled isosceles triangle with the right angle formed at the vertex of the trigonal pyramid. In truncated trigonal pyramidal configuration,
10 each of the side faces 11 is of trapezoidal configuration, wherein the non-parallel sides or edges 14, 15 and 16 of the trapezoidal faces are adapted to abut or to be closely juxtaposed with the corner junctures formed between adjacent ceiling and wall
15 faces, as shown at 20, 21 and 22 in Figure 2.

The face plate or window 18 of the security system is affixed to the housing 10 by means of tamper-resistant security screws 19, with a rubber seal or other sealing means 17 being incorporated between the window 18 and
20 the housing 10 to ensure a watertight and dustproof environment for the camera or other image sensor means 23 pivotally mounted at 24 and 25 within the housing. Ideally, the pivotal mountings 24 and 25 are universal-type joints which allow for infinite adjustment of the
25 camera or image sensor, such as from a remote central control room. This allows for remote detailed surveillance of a wide area within the range of the camera or image sensor.

The security surveillance system of the present
30 invention is optionally fitted with a microphone or intercom for audio surveillance and with heat or smoke

detector or thermostat means to detect fires. It may also incorporate alarm or inertia or motion detector means as additional security against tampering or vandalism.

- 5 The housing 10 may conveniently be fabricated from sheet metal or plastics material. The face plate or window 18 is preferably fabricated from industrial polycarbonate, and is secured to the housing with six 5mm security head fasteners. To ensure a watertight and dust-free
- 10 environment, the face plate is bevelled precisely to the same angle of the housing giving a good seal with walls and ceiling.

- The image sensor is ideally any compact closed circuit camera or the like, such as a monochrome CCD closed
- 15 circuit television camera (e.g. 12mm CCD with 5mm 36° angle lens, with automatic iris control).

- It should be appreciated that the present invention provides a substantial advance in security surveillance systems making it suitable for use in prison cells and
- 20 lock-ups, hospitals, sterile or clean rooms, building entrances and lobbies, elevators, hospitals, schools, art galleries, banks, airports or wherever conventional closed circuit television cameras are located and subject to vandalism or tampering.

- 25 Although the invention has been described above with reference to an exemplary embodiment thereof, it will be apparent to those having ordinary skill in the art that a number of changes, modifications or alternatives to the invention described herein may be made, none of

which depart from the spirit of the present invention.
All such changes, modifications and alterations should
therefore be seen as being within the scope of the
present invention.

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:-

1. A security surveillance system comprising a housing containing image sensor and lens means adapted to be connected to a remote monitor outside of the housing, said lens being pivotally mounted in the housing for variable adjustment, the housing having the shape of a triangular pyramid including a base and three sides, wherein said base forms the outside face or window of the housing, said face or window being transparent to or capable of transmitting sensed radiation, and when said system is installed in the corner of a room juxtaposed adjacent walls and ceiling said face or window constitutes the only visible obtrusion into the room.
2. A security surveillance system as claimed in Claim 1, wherein the face or window of the housing has the geometrical configuration of an equilateral triangle, wherein the vertex of the three sides is at a point furtherest from the base and constitutes the backend of said housing, and wherein each side has the geometrical configuration of a right angled isosceles triangle, the hypotenuse of which is conterminous with one side of the base.
3. A security surveillance system as claimed in Claim 1, wherein the vertex or apex of the housing is truncated and each of the three sides is of substantially trapezoidal configuration.



ABSTRACT

A security surveillance system including a closed circuit television camera contained in a housing of trigonal pyramidal or truncated trigonal pyramidal configuration, designed specifically for installation in corner mount situations between adjacent walls and the ceiling of a room, being especially suitable for installation in high-risk security areas. When installed the security surveillance system is flush to both the ceiling and the walls, creating a single face obtrusion into the room. The security surveillance system optionally includes audio communication means and/or heat, smoke or movement sensor means making it suitable for installation in areas where conventional closed circuit television cameras are located and subject to vandalism or tampering.

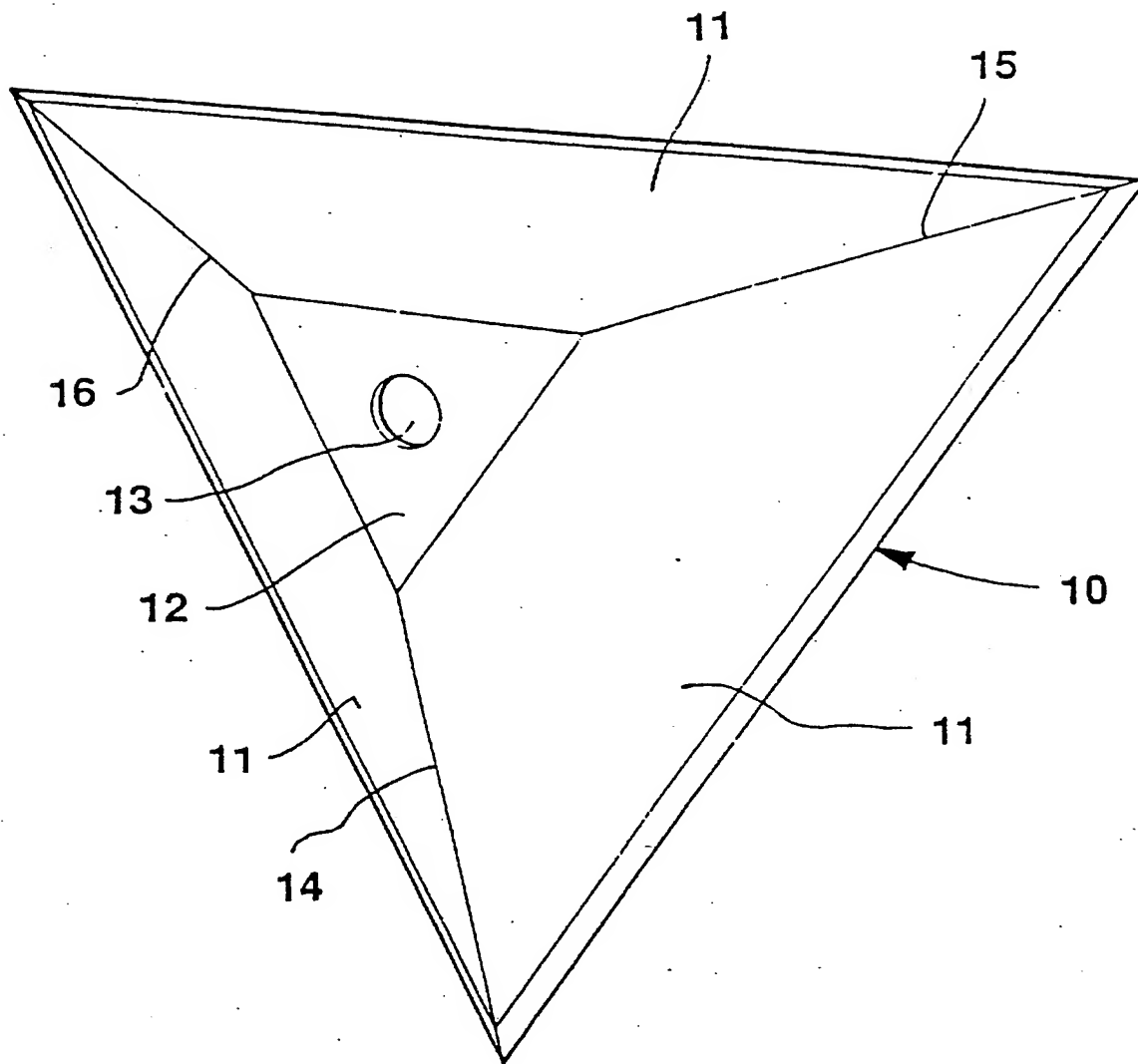


FIGURE 1

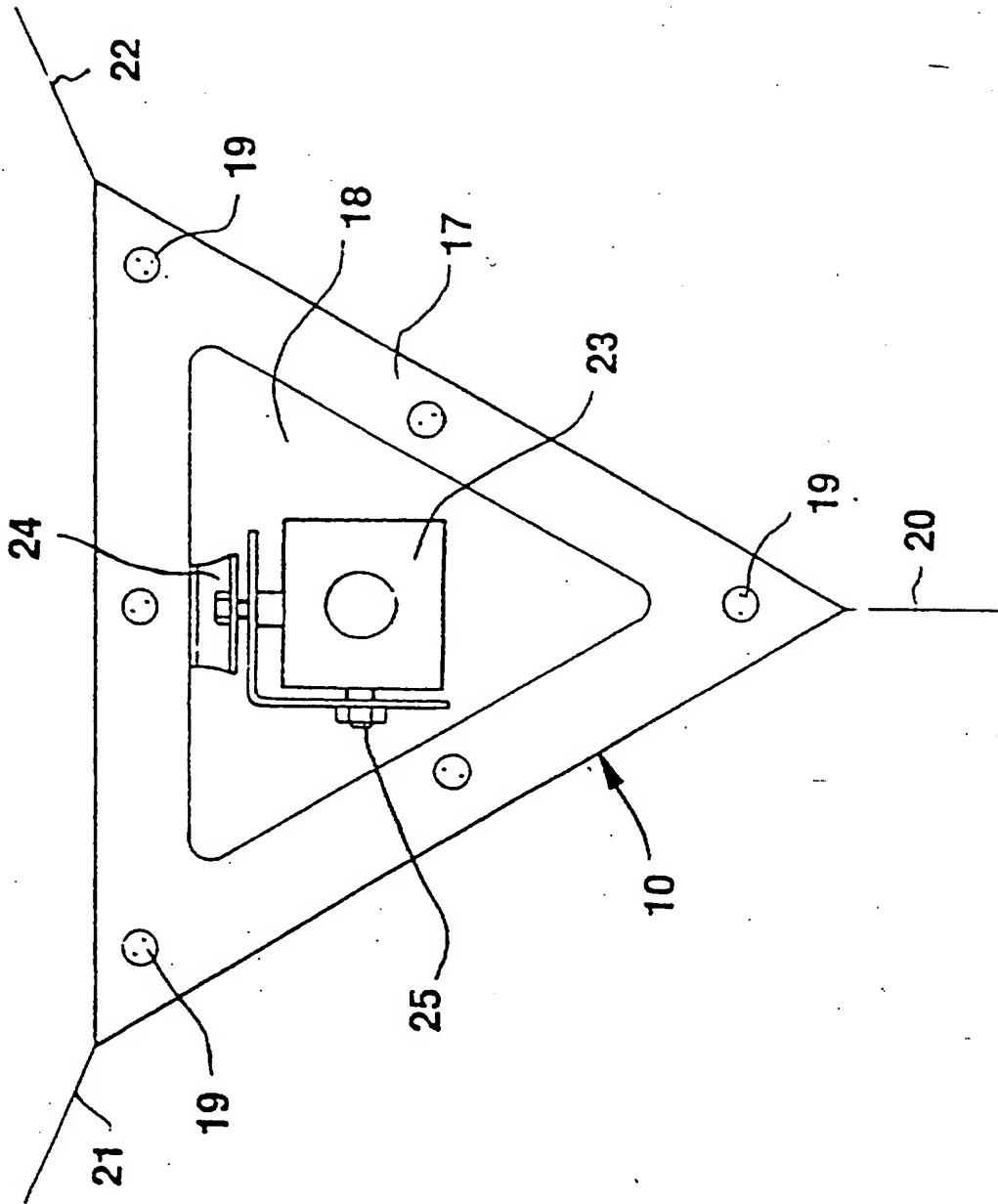


FIGURE 2

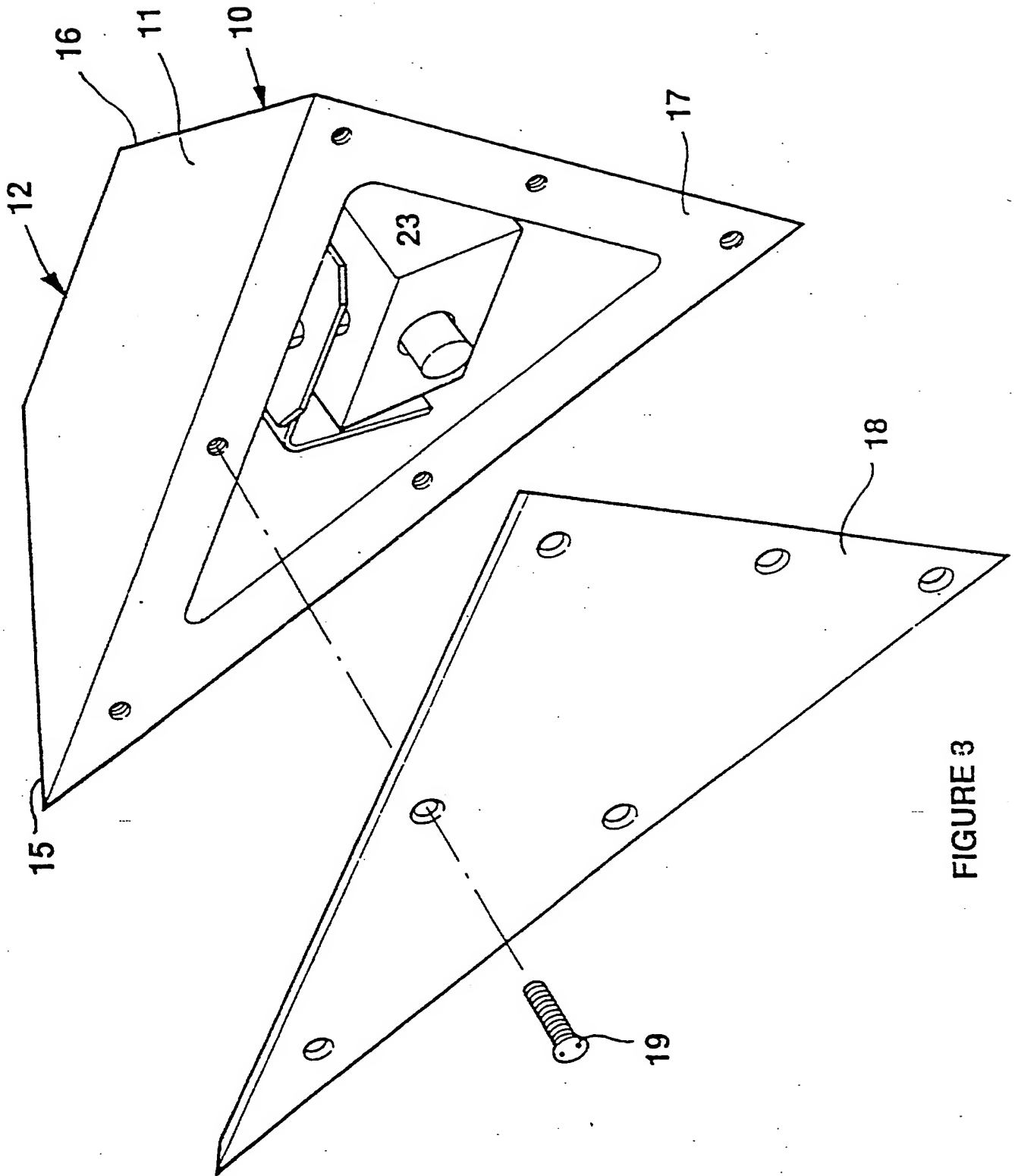


FIGURE 3



AU9341

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(Australian Petty Patent)

(54) Title
SECURITY SURVEILLANCE SYSTEM

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(57) Claim

1. A security surveillance system comprising a housing containing image sensor and lens means adapted to be connected to a remote monitor outside of the housing, said lens being pivotally mounted in the housing for variable adjustment, the housing having the shape of a triangular pyramid including a base and three sides, wherein said base forms the outside face or window of the housing, said face or window being transparent to or capable of transmitting sensed radiation, and when said system is installed in the corner of a room juxtaposed adjacent walls and ceiling said face or window constitutes the only visible obtrusion into the room.

PATENT REQUEST : PETTY PATENT

We, being the person identified below as the Applicant and Nominated Person, request the grant of a Patent to me for an invention described in the accompanying petty complete specification.

[70 & 71] Applicant and Nominated Person

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SECURITY SURVEILLANCE SYSTEM

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Drawing number recommended to accompany the Abstract: Fig. 3.

Dated this 25th day of June, 1993

COMSEC DISTRIBUTORS PTY. LIMITED.

BY: 

Patent Attorney for the Applicant

To: The Commissioner of Patents
AUSTRALIA

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